

## A. 発明の属する分野の分類 (国際特許分類 (IPC))

Int. Cl<sup>7</sup> A01K67/027, A61K45/00, A61P25/16, C12N5/16, C12Q1/02, G01N33/15, G01N33/50 // C12N15/12

## B. 調査を行った分野

## 調査を行った最小限資料 (国際特許分類 (IPC))

Int. Cl<sup>7</sup> A01K67/027, A61K45/00, A61P25/16, C12N5/16, C12Q1/02, G01N33/15, G01N33/50, C12N15/12

最小限資料以外の資料で調査を行った分野に含まれるもの

国際調査で使用した電子データベース (データベースの名称、調査に使用した用語)  
BIOSIS/WPI (DIALOG), PubMed, JSTPlus (JICST)

## C. 関連すると認められる文献

引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
A	Matsuoka Y. et al., Lack of nigral pathology in transgenic mice expressing human alpha-synuclein driven by the tyrosine hydroxylase promoter. Neurobiol. Dis., 2001, 8(3), p. 535-9	1-13
A	JP 2003-199460 A (東海林幹夫, 他2名) 2003. 07. 15 全文 (ファミリーなし)	1-13

☒ C欄の続きにも文献が列挙されている。☐ パテントファミリーに関する別紙を参照。

## \* 引用文献のカテゴリー

「A」 特に関連のある文献ではなく、一般的技術水準を示すもの

「E」 国際出願日前の出願または特許であるが、国際出願日以後に公表されたもの

「L」 優先権主張に疑義を提起する文献又は他の文献の発行日若しくは他の特別な理由を確立するために引用する文献 (理由を付す)

「O」 口頭による開示、使用、展示等に言及する文献

「P」 国際出願日前で、かつ優先権の主張の基礎となる出願

の日の後に公表された文献

「T」 国際出願日又は優先日後に公表された文献であって出願と矛盾するものではなく、発明の原理又は理論の理解のために引用するもの

「X」 特に関連のある文献であって、当該文献のみで発明の新規性又は進歩性がないと考えられるもの

「Y」 特に関連のある文献であって、当該文献と他の1以上の文献との、当業者にとって自明である組合せによって進歩性がないと考えられるもの

「&amp;」 同一パテントファミリー文献

国際調査を完了した日

30. 11. 2004

国際調査報告の発送日

14.12.2004

国際調査機関の名称及びあて先

日本国特許庁 (ISA/J P)

郵便番号 100-8915

東京都千代田区霞が関三丁目4番3号

特許庁審査官 (権限のある職員)

上條 肇

4 B

3 1 3 1

電話番号 03-3581-1101 内線 3448

C (続き) . 関連すると認められる文献		
引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
A	WO 01/60794 A2 (THE REGENTS OF THE UNIVERSITY OF CALIFORNIA) 2001. 08. 23, 特に, Example 7-9参照 & US 2004/0128706 A1	1-13
A	US 2002/0111321 A1 (Ronald K., 他4名) 2002. 08. 15 特に, Example 3参照 & WO 02/63951 A2 & EP 1418806 A2 & US 2004/0205833 A1	1-13
A	WO 98/59050 A1 (THE GOVERNMENT OF THE UNITED STATES OF AMERICA represented by THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES) 1998. 12. 30 特に, 請求項63参照 (ファミリーなし)	1-13
A	van der Putten H. et al., Neuropathology in mice expressing human alpha-synuclein. J. Neurosci., 2000, 20 (16), p. 6021-9	1-13
A	Masliyah E. et al., Dopaminergic loss and inclusion body formation in alpha-synuclein mice: implications for neurodegenerative disorders. Science, 2000, 287 (5456), p. 1265-9	1-13
A	Richfield EK. et al., Behavioral and neurochemical effects of wild-type and mutated human alpha-synuclein in transgenic mice. Exp. Neurol., 2002, 175 (1), p. 35-48	1-13
A	Kirik D. et al., Nigrostriatal alpha-synucleinopathy induced by viral vector-mediated overexpression of human alpha-synuclein: a new primate model of Parkinson's disease. Proc. Natl. Acad. Sci. U. S. A., 2003 Mar, 100 (5), p. 2884-9	1-13
A	Lo Bianco C. et al., alpha-Synucleinopathy and selective dopaminergic neuron loss in a rat lentiviral-based model of Parkinson's disease. Proc. Natl. Acad. Sci. U. S. A., 2002, 99 (16), p. 10813-8	1-13
A	Zhou W. et al., Overexpression of human alpha-synuclein causes dopamine neuron death in primary human mesencephalic culture. Brain Res., 2002, 926 (1-2), p. 42-50	1-13
A	Kanda S. et al., Enhanced vulnerability to oxidative stress by alpha-synuclein mutations and C-terminal truncation. Neuroscience, 2000, 97 (2), p. 279-84	1-13

C (続き) . 関連すると認められる文献		
引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
A	Park SM. et al., Distinct roles of the N-terminal-binding domain and the C-terminal-solubilizing domain of alpha-synuclein, a molecular chaperone. J. Biol. Chem., 2002, 277 (32), p. 28512-20	1-13
A	Kim TD. et al., Structural and functional implications of C-terminal regions of alpha-synuclein. Biochemistry, 2002, 41 (46), p. 13782-90	1-13
PX	Ishi A. et al., Generation and analysis of transgenic mice that express human alpha-synuclein in dopamine neurons. 神経化学, 2004 Aug 10, 43 (2, 3), p. 369, 0G1-06	1-13
T	Fernagut PO. et al., Alpha-synuclein and transgenic mouse models. Neurobiol. Dis., 2004 Nov, 17 (2), p. 123-30	1-13

## 第II欄 請求の範囲の一部の調査ができないときの意見 (第1ページの2の続き)

法第8条第3項(PCT17条(2)(a))の規定により、この国際調査報告は次の理由により請求の範囲の一部について作成しなかった。

1. ☐ 請求の範囲 \_\_\_\_\_ は、この国際調査機関が調査をすることを要しない対象に係るものである。  
つまり、
2. ☒ 請求の範囲 14-15 は、有意義な国際調査をすることができる程度まで所定の要件を満たしていない国際出願の部分に係るものである。つまり、  
特別ページ参照。
3. ☐ 請求の範囲 \_\_\_\_\_ は、従属請求の範囲であってPCT規則6.4(a)の第2文及び第3文の規定に従って記載されていない。

## 第III欄 発明の単一性が欠如しているときの意見 (第1ページの3の続き)

次に述べるようにこの国際出願に二以上の発明があるとこの国際調査機関は認めた。

1. ☐ 出願人が必要な追加調査手数料をすべて期間内に納付したので、この国際調査報告は、すべての調査可能な請求の範囲について作成した。
2. ☐ 追加調査手数料を要求するまでもなく、すべての調査可能な請求の範囲について調査することができたので、追加調査手数料の納付を求めなかった。
3. ☐ 出願人が必要な追加調査手数料を一部のみしか期間内に納付しなかったので、この国際調査報告は、手数料の納付のあった次の請求の範囲のみについて作成した。
4. ☐ 出願人が必要な追加調査手数料を期間内に納付しなかったので、この国際調査報告は、請求の範囲の最初に記載されている発明に係る次の請求の範囲について作成した。

## 追加調査手数料の異議の申立てに関する注意

- ☐ 追加調査手数料の納付と共に出願人から異議申立てがあった。  
☐ 追加調査手数料の納付と共に出願人から異議申立てがなかった。

## 〈調査の対象について〉

請求の範囲14-15に係る「請求項12又は13に記載のスクリーニング方法により得られる物質」は、出願時の技術常識を勘案してもそのような性質を有する化合物の範囲を特定できないから、請求の範囲14-15は、PCT6条における明確性の要件を欠いている。

したがって、請求の範囲14-15に係る発明について有意義な調査をすることができない。

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/016373

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> A01K67/027, A61K45/00, A61P25/16, C12N5/16, C12Q1/02,  
G01N33/15, G01N33/50//C12N15/12

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> A01K67/027, A61K45/00, A61P25/16, C12N5/16, C12Q1/02,  
G01N33/15, G01N33/50, C12N15/12

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

BIOSIS/WPI (DIALOG), PubMed, JSTPlus (JICST)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Matsuoka Y. et al., Lack of nigral pathology in transgenic mice expressing human alpha-synuclein driven by the tyrosine hydroxylase promoter. Neurobiol.Dis., 2001, 8(3), p.535-9	1-13
A	JP 2003-199460 A (Mikio SHOJI et al.), 15 July, 2003 (15.07.03), Full text (Family: none)	1-13
A	WO 01/60794 A2 (THE REGENTS OF THE UNIVERSITY OF CALIFORNIA), 23 August, 2001 (23.08.01), Particularly, examples 7 to 9 & US 2004/0128706 A1	1-13

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

30 November, 2004 (30.11.04)

Date of mailing of the international search report

14 December, 2004 (14.12.04)

Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/016373

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2002/0111321 A1 (Ronald K. et al.), 15 August, 2002 (15.08.02), Particularly, example 3 & WO 02/63951 A2 & EP 1418806 A2 & US 2004/0205833 A1	1-13
A	WO 98/59050 A1 (THE GOVERNMENT OF THE UNITED STATES OF AMERICA represented by THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES), 30 December, 1998 (30.12.98), Particularly, Claim 63 (Family: none)	1-13
A	van der Putten H. et al., Neuropathology in mice expressing human alpha-synuclein. J.Neurosci., 2000, 20(16), p.6021-9	1-13
A	Masliah E. et al., Dopaminergic loss and inclusion body formation in alpha-synuclein mice: implications for neurodegenerative disorders. Science, 2000, 287(5456), p.1265-9	1-13
A	Richfield EK. et al., Behavioral and neurochemical effects of wild-type and mutated human alpha-synuclein in transgenic mice. Exp.Neurol., 2002, 175(1), pages 35 to 48	1-13
A	Kirik D. et al., Nigrostriatal alpha- synucleinopathy induced by viral vector- mediated overexpression of human alpha- synuclein: a new primate model of Parkinson's disease. Proc.Natl.Acad.Sci.U.S.A., 2003 March, 100(5), p.2884-9	1-13
A	Lo Bianco C. et al., alpha-Synucleinopathy and selective dopaminergic neuron loss in a rat lentiviral-based model of Parkinson's disease. Proc.Natl.Acad.Sci.U.S.A., 2002, 99(16), p.10813-8	1-13
A	Zhou W. et al., Overexpression of human alpha- synuclein causes dopamine neuron death in primary human mesencephalic culture. Brain Res., 2002, 926(1-2), pages 42 to 50	1-13
A	Kanda S. et al., Enhanced vulnerability to oxidative stress by alpha-synuclein mutations and C-terminal truncation. Neuroscience, 2000, 97(2), p.279-84	1-13

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/016373

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Park SM. et al., Distinct roles of the N-terminal-binding domain and the C-terminal-solubilizing domain of alpha-synuclein, a molecular chaperone. J.Biol.Chem., 2002, 277(32), p.28512-20	1-13
A	Kim TD. et al., Structural and functional implications of C-terminal regions of alpha-synuclein. Biochemistry, 2002, 41(46), p.13782-90	1-13
P,X	Ishi A. et al., Generation and analysis of transgenic mice that express human alpha-synuclein in dopamine neurons. Bulletin of the Japanese Society for Neurochemistry, 10 August, 2004 (10.08.04), 43(2,3), p.369,0G1-06	1-13
T	Fernagut PO. et al., Alpha-synuclein and transgenic mouse models. Neurobiol.Dis., 2004 November, 17(2), p.123-30	1-13



**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/JP2004/016373

**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos. 14-15:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
See extra sheet.
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/JP2004/016373

Continuation of Box No.II-2 of continuation of first sheet(2)

(Subject of search)

With respect to the "substance obtained by the screening method of claim 12 or 13" claimed in claims 14-15, the scope of compounds with such characteristic cannot be specified even if technical common knowledge at the filing of the application is taken into account. Consequently, claims 14-15 fail to satisfy the requirement of clarity prescribed in PCT Article 6.

Therefore, no meaningful search can be conducted on the invention of claims 14-15.